



Complete Summary

TITLE

Inflow/outflow: ratio of the number of separations (discharges and deaths) from acute care/same day surgery facilities within a given region by the number of acute care/same day surgery separations generated by residents of that region.

SOURCE(S)

Canadian Institute for Health Information (CIHI). Health indicators 2008: definitions, data sources and rationale. Ottawa (ON): Canadian Institute for Health Information (CIHI); 2008 May. 39 p.

Measure Domain

PRIMARY MEASURE DOMAIN

Use of Services

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the ratio of the number of separations (discharges and deaths) from acute care/same day surgery facilities within a given region by the number of acute care/same day surgery separations generated by residents of that region.

RATIONALE

This indicator reflects the balance between the quantity of hospital stays provided to both residents and non-residents by all relevant facilities (acute care hospitals/same day surgery) in a given region and the extent of utilization by residents of that region, whether they receive care within or out of the region. A ratio of less than one indicates that health care utilization by residents of a region exceeded care provided within that region, suggesting an outflow effect. A ratio

greater than one indicates that care provided by a region, exceeded the utilization by its residents, suggesting an inflow effect. A ratio of one indicates that care provided by a region is equivalent to the utilization by its residents, suggesting that inflow and outflow activity, if it exists at all, is balanced. A ratio of zero is an indication that none of the institutions in the region provided the service and residents received care outside of their region.

PRIMARY CLINICAL COMPONENT

Inflow/outflow ratio; acute care facilities; same day surgery facilities; coronary artery bypass graft (CABG); percutaneous coronary intervention (PCI); hip replacement; knee replacement; hysterectomy procedures

DENOMINATOR DESCRIPTION

Number of separations generated by residents of a given region, where region is as specified in the numerator

Note: Refer to the original measure documentation for the Canadian Classification of Diagnostic, Therapeutic, and Surgical Procedures (CCP) and Canadian Classification of Health Interventions (CCI) codes.

NUMERATOR DESCRIPTION

Number of separations (discharges and deaths) from acute care/same day surgery facilities within a given region (including non-residents) (see the related "Numerator Inclusions/Exclusions" field in the Complete Summary)

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE VALUE OF MONITORING USE OF SERVICE

- A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Monitoring and planning
Variation in use of service

EVIDENCE SUPPORTING NEED FOR THE MEASURE

Canadian Institute for Health Information (CIHI). Health indicators 2008. Ottawa (ON): Canadian Institute for Health Information (CIHI); 2008. 96 p.

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Federal health policymaking
Monitoring and planning
National reporting

Application of Measure in its Current Use

CARE SETTING

Ambulatory Care
Hospitals

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Regional

TARGET POPULATION AGE

Unspecified

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Unspecified

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Not within an IOM Care Need

IOM DOMAIN

Not within an IOM Domain

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Separations generated by residents of a given region, where region is as specified in the numerator

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Number of separations generated by residents of a given region, where region is as specified in the numerator

Note: Refer to the original measure documentation for the Canadian Classification of Diagnostic, Therapeutic, and Surgical Procedures (CCP) and Canadian Classification of Health Interventions (CCI) codes.

Exclusions

Unspecified

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are not equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Institutionalization

DENOMINATOR TIME WINDOW

Time window brackets index event

NUMERATOR INCLUSIONS/EXCLUSIONS**Inclusions**

Number of separations (discharges and deaths) from acute care/same day surgery facilities within a given region (including non-residents)

Note: Refer to the original measure documentation for the Canadian Classification of Diagnostic, Therapeutic, and Surgical Procedures (CCP) and Canadian Classification of Health Interventions (CCI) codes.

Exclusions

Procedures coded as cancelled, previous, out-of-hospital, and "abandoned after onset" are excluded.

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Institutionalization

DATA SOURCE

Administrative data

LEVEL OF DETERMINATION OF QUALITY

Does not apply to this measure

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure**SCORING**

Ratio

INTERPRETATION OF SCORE

Undetermined

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

External comparison at a point in time
External comparison of time trends
Internal time comparison

Evaluation of Measure Properties**EXTENT OF MEASURE TESTING**

Unspecified

Identifying Information**ORIGINAL TITLE**

Inflow/outflow ratio.

MEASURE COLLECTION

[Health Indicators 2008](#)

DEVELOPER

Canadian Institute for Health Information

FUNDING SOURCE(S)

Canadian Government

COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE

Employees: Canadian Institute for Health Information (CIHI) Health Indicators

FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

None

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2006 Jun

REVISION DATE

2008 May

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

Canadian Institute for Health Information (CIHI). Health indicators 2008: definitions, data sources and rationale. Ottawa (ON): Canadian Institute for Health Information (CIHI); 2008 May. 39 p.

MEASURE AVAILABILITY

The individual measure, "Inflow/Outflow Ratio," is published in "Health Indicators 2008: Definitions, Data Sources and Rationale." This document is available in Portable Document Format (PDF) from the [Canadian Institute for Health Information \(CIHI\) Web site](http://www.cihi.ca/cihiweb/).

For more information, contact CIHI at, 4110 Yonge Street, Suite 300, Toronto, Ontario, Canada, M2P 2B7; Phone: 416-481-2002; Fax: 416-481-2950; E-mail: indicators@cihi.ca; Web site: <http://www.cihi.ca/cihiweb/>.

COMPANION DOCUMENTS

The following is available:

- Canadian Institute for Health Information (CIHI). Health indicators 2007. Ottawa (ON): Canadian Institute for Health Information (CIHI); 2007. 87 p. This document is available in Portable Document Format (PDF) from the [Canadian Institute for Health Information \(CIHI\) Web site](http://www.cihi.ca/cihiweb/).
- Canadian Institute for Health Information (CIHI). ICD-9/CCP, ICD-9-CM and ICD-10-CA/CCI codes for health indicators 2007. Ottawa (ON): Canadian Institute for Health Information (CIHI); 2007. various p. This document is available from the [CIHI Web site](http://www.cihi.ca/cihiweb/).

NQMC STATUS

This NQMC summary was completed by ECRI Institute on October 10, 2008. The information was verified by the measure developer on December 18, 2008.

COPYRIGHT STATEMENT

This NQMC summary is based on the original measure, which is subject to the measure developer's copyright restrictions. Use of Canadian Institute for Health Information's (CIHI) quality measure for research, private study, education, or other non-commercial purposes is permitted where full credit is given to CIHI as author and owner of the quality measure. Any use that is wholly or partly commercial in nature requires CIHI's express written permission.

For more information, contact CIHI at, 4110 Yonge Street, Suite 300, Toronto, Ontario, Canada, M2P 2B7; Phone: 416-481-2002; Fax: 416-481-2950.

Disclaimer

NQMC DISCLAIMER

The National Quality Measures Clearinghouse™ (NQMC) does not develop, produce, approve, or endorse the measures represented on this site.

All measures summarized by NQMC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public and private organizations, other government agencies, health care organizations or plans, individuals, and similar entities.

Measures represented on the NQMC Web site are submitted by measure developers, and are screened solely to determine that they meet the NQMC Inclusion Criteria which may be found at <http://www.qualitymeasures.ahrq.gov/about/inclusion.aspx>.

NQMC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or its reliability and/or validity of the quality measures and related materials represented on this site. The inclusion or hosting of measures in NQMC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding measure content are directed to contact the measure developer.

[Copyright/Permission Requests](#)

Date Modified: 4/13/2009

